

where

A is an alkanediyl radical of the formula

$-\text{CH}_2-\text{CH}_2-$ (= ethane-1,2-diyl),

$-\text{CH}_2-\text{CH}(\text{CH}_3)-$ (= propane-1,2-diyl) or

$-(\text{CH}_2)_4-$ (= butane-1,4-diyl),

X_a is $-\text{O}-$ or $-\text{NH}-$,

E_a is H, (C_2-C_8) alkanoyl, benzoyl or phenylacetyl,

$\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-\text{C}_1-\text{C}_4\text{alkyl}$,

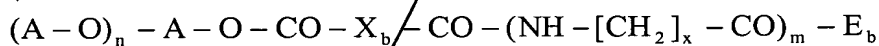
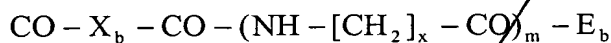
$\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-\text{C}_6\text{H}_5$ or

$\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-\text{CO}-\text{CH}_2-\text{C}_6\text{H}_5$,

x is an integer from 5 to 11,

m is an integer from 30 to 200 and

n is an integer from 4 to 60;



(II)

where

X_b is an alkanediyl radical of the formula $-\text{[CH}_2\text{]}_z-$,

where z is an integer from 4 to 10,

meta- or *para*-phenylene,

$-\text{NH}-\text{C}_1-\text{C}_6\text{alkyl}-\text{NH}-$,

$-\text{NH}-\text{C}_6\text{H}_3-(\text{CH}_3)-\text{NH}-$,

$>\text{N}-[\text{CH}_2]_{x-1}-\text{CH}_3$, $-\text{[CH}_2\text{]}_z-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-$ or

$-\text{C}_6\text{H}_4-\text{CO}-\text{N}([\text{CH}_2]_{x-1}-\text{CH}_3)-$,

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where C_6H_4 is *meta*- or *para*-phenylene,

E_b is -OH, -O-(C_1 - C_7)alkyl, -O-phenyl or -N—C=O
 $\begin{array}{c} \diagdown \quad \diagup \\ [CH_2]_x \end{array}$

and

A, m and n have the meanings given above;

-[X-(CO-[CH₂]_x-NH)_o-Y-X-(A-O)_p-A]- (III)

where

Y is -CO-, -CO-[CH₂]_z-CO- or -CO- C_6H_4 -CO-,

where C_6H_4 is *meta*- or *para*-phenylene, or is

-CO-N([CH₂]_{x-1}-CH₃)-CO-,

-CO-N([CH₂]_{x-1}-CH₃)-CO-[CH₂]_z-CO-N([CH₂]_{x-1}-CH₃)-CO- or

-CO-N([CH₂]_{x-1}-CH₃)-CO- C_6H_4 -CO-N([CH₂]_{x-1}-CH₃)-CO-,

where C_6H_4 has the meanings specified,

o is an integer from 10 to 150 and

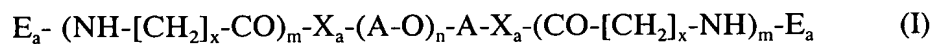
p is an integer from 4 to 100 and

A, x and z have the meanings given above.

Please add the following new claims:

12. (New) A process for producing a biaxially stretched and thermoset, tubular, seamless, single-layer or a biaxially stretched and thermoset, tubular, seamless, multiple-layer food casing having a residual shrinkage in the range of from 5 to 20% at 80°C, in which the layer or, in the case of multiple-layer casings, at least one of the layers comprises a block copolymer containing "hard" aliphatic polyamide blocks having a glass-transition temperature of from 20 to 80°C and "soft" aliphatic polyether blocks having a

glass-transition temperature of from -100 to -20°C, which block copolymer corresponds to one of the formulae I to III



where

A is an alkanediyl radical of the formula

-CH₂-CH₂- (= ethane-1,2-diyl),

-CH₂-CH(CH₃)- (= propane-1,2-diyl) or

-(CH₂)₄- (= butane-1,4-diyl),

X_a is -O- or -NH-,

E_a is H, (C₂-C₈)alkanoyl, benzoyl or phenylacetyl,

CO-N([CH₂]_{x-1}-CH₃)-CO-(C₁-C₄)alkyl,

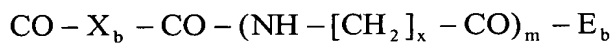
CO-N([CH₂]_{x-1}-CH₃)-CO-C₆H₅ or

CO-N([CH₂]_{x-1}-CH₃)-CO-CH₂-C₆H₅,

x is an integer from 5 to 11,

m is an integer from 30 to 200 and

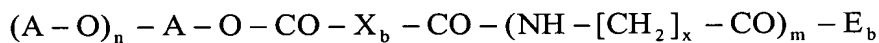
n is an integer from 4 to 60;



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(II)

where

X_b is an alkanediyl radical of the formula -[CH₂]_z-,

where z is an integer from 4 to 10,

meta- or *para*-phenylene,

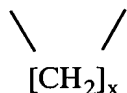
-NH-(C₁-C₆)alkyl-NH-,

-NH-C₆H₃-(CH₃)-NH-,

> N-[CH₂]_{x-1}-CH₃, -[CH₂]_z-CO-N([CH₂]_{x-1}-CH₃)- or

-C₆H₄-CO-N([CH₂]_{x-1}-CH₃)-,

where C₆H₄ is *meta*- or *para*-phenylene,

E_b is -OH, -O-(C₁-C₇)alkyl, -O-phenyl or -N—C=O


and

A, m and n have the meanings given above;

-[X-(CO-[CH₂]_x-NH)_o-Y-X-(A-O)_p-A]- (III)

where

Y is -CO-, -CO-[CH₂]_z-CO- or -CO-C₆H₄-CO-,

where C₆H₄ is *meta*- or *para*-phenylene, or is

-CO-N([CH₂]_{x-1}-CH₃)-CO-,

-CO-N([CH₂]_{x-1}-CH₃)-CO-[CH₂]_z-CO-N([CH₂]_{x-1}-CH₃)-CO- or

-CO-N([CH₂]_{x-1}-CH₃)-CO-C₆H₄-CO-N([CH₂]_{x-1}-CH₃)-CO-,

where C₆H₄ has the meanings specified,

o is an integer from 10 to 150 and

p is an integer from 4 to 100 and

A, x and z have the meanings given above, wherein said process comprises:

preparing a homogeneous melt of a polymer blend containing the block copolymer;

extruding the melt through a heated ring die to form a seamless tube;

stretching the extruded casing by blow molding to form a stretched tube;

partially thermosetting the stretched tube to form the single or multilayer food casing.

13. (New) A process according to claim 12, further comprising rapidly cooling the seamless tube after extrusion to obtain the polymers in an amorphous state, and heating the cooled tube to a blow molding temperature.

14. (New) A process according to claim 12, wherein the step of extruding the melt through a heated ring die to obtain a seamless tube, further comprises coextruding the polymer blend and another polymer blend through a coextrusion die to obtain a multilayer seamless tube.